In the present work we study Radon-Nikodým compact spaces (RN compacta for short) their topological characterizations and properties with emphasis on those related to the problem of continuous image of RN compact. First chapter consists of auxiliary results. In second chapter we give eight characterizations of RN compacta as well as several examples. In third chapter we introduce three notions weaker than that of RN compact and stable under continuous images and we show that they are equivalent. Last chapter is devoted to partial positive solutions to the problem of continuous image.